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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,746	04/03/2001	Christopher Goh	10460-011-999	7301

1473 7590 10/09/2003

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EXAMINER	
LEE, RIP A	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

06 11

Office Action Summary	Application No.	Applicant(s)	
	09/825,746	GOH ET AL.	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *July 14, 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10,14 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10, 14 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This office action follows a response filed on July 14, 2003. Applicants have amended claims 10 and 14. Claims 11-13 and 16 were canceled.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

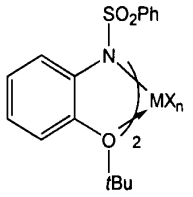
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

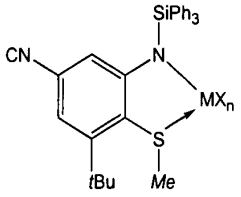
2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 10, 14, and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 11-199592 to Matsui *et al.* for the same reasons set forth in the previous office action (Paper No. 9).

Structures illustrated on page 19 of the reference meet the structural features of the ligand sphere about the metal center, as outlined in present claims 10 and 14. Note, for example, the compounds, reproduced below, which meet the requisite parameters defined by general formulae (XX) and (XXX).





Matsui *et al.* states generally that M is a group 4 metal such as hafnium in paragraph [0020] (col. 9, line 36) and specifically in paragraph [0058] (col. 18, line 20). In terms of the purity of the compound indicated in present claim 15, it has been shown that the pure compounds are unpatentable over impure compounds if the utility is the same. *In re Crossley* 72 USPQ 499, *In* re *Merz* 1938 CD 728.

4. Claims 10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/01460 to Murray.

The prior art of Murray teaches complexes described generically in present claims 10-14 (see Murray, claim 1 for comparison). In particular, the third organometallic complex shown in claim 2 of the prior art has a ligand framework that is essentially the same as that described by general structure (XXXIV) of the present claims. While claim 2 of Murray does not show specifically an organometallic complex containing hafnium, it would have been obvious to one

having ordinary skill in the art to arrive at such a compound because Murray indicates that metal M includes group 3-13 elements, and this would include the group 4 metal hafnium. This is especially obvious in view of the fact the claims show zirconium (also group 4) complexes. Regarding claim 15, it has been shown that the pure compounds are unpatentable over impure compounds if the utility is the same (*vide supra*).

Response to Arguments

5. Applicants traverse the rejection of claims 10, 14, and 15 under 35 U.S.C. 102(a) as being anticipated by JP 11-199592 to Matsui *et al.* Applicant's arguments have been considered fully, but they are not persuasive. The Applicants contend that the claims can not be anticipated because the prior art does not show examples of hafnium compounds and because the prior art does not constitute "sufficient specificity" required to anticipate a specific example within a range.

While MPEP 2131.03 is concerned with numerical ranges, the relevance of the citation herein is understood. While it seems that Matsui *et al.* presents a range of possible metals which are compatible with the invention, the inventors do refer to use of hafnium in paragraph [0058] (col. 18, line 20). That there is no specific hafnium compound shown in the examples does not overcome the fact that Hf is recited specifically as a metal for compounds of the invention. As such, the subject matter of the present claims is still anticipated by the prior art.

6. Applicants traverse the rejection of claims 10, 14, and 15 under 35 U.S.C. 102(a) as being anticipated by JP 11-199592 to Matsui *et al.* Applicant's arguments have been considered, but they are moot in view of the new ground(s) of rejection.

7. *Examiner's note*: In response to a previous claim objection, claim 10 was to recite "NR^2" instead of "NHR^2." Applicants comment that the skilled artisan would recognize that the hydrogen atom attached to N has been omitted for clarity. This statement is not correct with respect to the present claim. Compounds of the invention contain amide bonding in which the N-M bond is covalent in nature. Compounds which contain the fragment NHR^2 would possess amine bonding in which the N-M interaction occurs *via* coordinate covalent bonding. Compounds of this type are excluded from the present application.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

ral

October 7, 2003

DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700